Draft Recommendations to SWRCB from the UST Program Task Force

(these are bare-bones and to the point, and would be fleshed out with applicable technical and regulatory backup)

1. The existing UST regulations [CCR Title 23 Division 3 Chapter 16] do not address risk-based decision making in any manner (e.g., the terms site conceptual model, risk assessment, etc. are not found anywhere in the regulations), the regulations should be re-written to incorporate and lay out the process for risk-based decision-making and site closure requirements.
2. In the interim time during which the UST regulations are being re-written, a new Resolution should be written that specifically endorses risk-based decision-making at LUFT sites and lays out the technical requirements and a clear process for site closure.
3. Resolution 88-63 has resulted in virtually all groundwater in the State as being a "potential source of drinking water" (primarily due to the very low yield threshold of 200 gpd or 0.14 gpm) and therefore subject to drinking-water-based Water Quality Objectives (WQOs). This includes "first water" encountered at the water table or perched zones; neither of these types of groundwater units are probable sources of drinking water due to their relatively poor hydraulic properties. Resolution 88-63 should be revised to re-define the sources of drinking water as "existing or probable sources of drinking water" (with more reasonable technical requirements) and each regional basin plan should be revised accordingly.
4. Decades of empirical data have shown that groundwater in the State is not impacted on a large scale by biodegradable components of petroleum (e.g., BTEX, TPH). Many studies have shown that even when no active remediation is performed, BTEX and TPH plumes are limited laterally and vertically to small volumes of groundwater due to natural attenuation. [Conversely, the non-petroleum components that are less easily biodegraded in natural subsurface conditions (e.g., MTBE) have migrated from petroleum release sites to impact larger volumes of groundwater.] Vast resources have been expended to remediate biodegradable petroleum components to drinking water WQOs at the release site, irrespective of the fact that the biodegradable components naturally attenuate within a few hundred feet of the source area. These vast expenditures are not consistent with the maximum benefit of the people of the State because they are not correlated with protection of or improvements to large volumes of probable sources of drinking water. A new Resolution should be written stating that Resolutions 68-16, 88-63 and 92-49 do not apply to the biodegradable components of a petroleum release.

5. The Porter-Cologne Act allows for each Regional Board and local agency to impose stricter water quality requirements than those issued by the State Board. This has resulted in a hodge-podge of WQOs and closure requirements for petroleum sites across the State. Such a patchwork of requirements is not scientifically defensible because the fate, transport and risk to probable sources of drinking water or human health posed by petroleum releases does not vary that significantly throughout the State. This hodge-podge has resulted in the significant expenditure of resources that is not technically justifiable or consistent with maximum benefit to the people of the State. Therefore, a new Resolution should be written that exempts petroleum releases from the "localized stricter requirements" aspect of Porter-Cologne, and requires that petroleum releases be assessed, remediated and closed within the limits of State Board WQOs and policy.
6. In the absence of a Resolution regarding exempting petroleum from the "stricter requirements" aspect of Porter-Cologne, a new Resolution should be written that requires Regional Boards and local agencies to strictly implement State Board policy for LUFT assessments, cleanup and closure or lose their funding for the LUFT program.
7. Research and field empirical evidence are conclusive that petroleum vapors naturally biodegrade in the subsurface, a new Resolution should be written that requires vapor transport modeling at petroleum release sites to incorporate biodegradation.
8. Many Regional Boards and local agencies have developed "screening levels" for petroleum constituents that are based on very conservative assumptions (e.g., hazard indices of 0.2, assumption of fresh product, assumption of no future biodegradation, use of unpromulgated taste and odor criteria, and taste and odor criteria for extractable TPH that are not technically appropriate unless silica gel cleanup is used). Because of this conservatism, these screening levels now serve to screen most sites <u>in</u> to case management rather than <u>out</u>, and therefore have become less useful. Further, these screening levels are often used by local regulators as cleanup criteria for closure. A new Resolution should be written that clarifies that screening criteria are NOT cleanup criteria, and that extractable TPH should not be compared to taste and odor criteria unless it includes a silica gel cleanup or is a fractionated analysis.
9. Vast resources have been spent simply due to the presence of TPH in soil or groundwater, and it is well known that Method 8015 TPH does not provide data on constituents or classes of constituents that are present. A new Resolution should be written to require that regulatory decisions be based on either fractionated TPH and/or discrete constituents. If Method 8015 extractable TPH is used, silica gel cleanup must be applied so that only the petroleum hydrocarbons are being measured and are driving regulatory decisions.